



Micropolitan areas and the measurement of American urbanization

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Abstract. With the official designation of micropolitan areas in June 2003, as part of the new core-based statistical area system, non-metropolitan territory is no longer an undifferentiated residual. In this paper we compare the demographic and socioeconomic characteristics of a preliminary set of micropolitan areas with more highly urbanized territory and with territory outside core-based statistical areas, to answer questions about the micropolitan category's conceptual validity. Demographic and economic data are used, along with a mail survey of county officials in a random sample of small metropolitan, micropolitan, and non-core-based statistical areas (non-CBSAs). The analysis shows substantial differentiation between micropolitan and non-CBSA areas, and demonstrates the importance of distinguishing between these two types of non-metropolitan areas. As an intermediate category, micropolitan areas provide stability to the decade-to-decade swings in non-metropolitan population change during periods of higher out-migration, but share almost equally with non-CBSA areas in attracting migrants during periods of high non-metropolitan in-migration. In terms of services available and their function as urban centers, micropolitan areas are intermediate between small metropolitan and non-CBSA areas, but more similar to small metropolitan areas.

Keywords: Metropolitan, Micropolitan, Non-metropolitan turnaround, Rural rebound, Urbanization

Introduction: area classification and social and economic reality

No one doubts that America is a predominately metropolitan nation. However, researchers disagree on the conceptual definition of metropolitan, the nature of the social and economic processes that transform territories and populations from non-metropolitan to metropolitan status, and the operational procedures used to distinguish metropolitan areas from their non-metropolitan counterparts. Federal statistical agencies in most developed nations create territorial classification systems to delineate metropolitan areas, and to differentiate them from areas that lack metropolitan functions and/or character. The relationship between social and economic structure and change on the one

hand, and the statistical systems designed to depict that reality on the other hand is often tenuous. As Duncan and his colleagues (1960:4) observed with respect to metropolitanization, "...the metropolis is not a creation of the federal (or any other) government, nor is it an artifact of bureaucratic statistical procedures." Hence, the validity of official classifications is extremely important because statistical practice has a marked effect on what is considered to be metropolitan (and non-metropolitan) at any point in time, and on the perceived pace of metropolitanization.

Official classification systems must change along with a nation's settlement system. If they are rigid and resistant to change they will not give an accurate representation of the metropolitanization process. Statistical categories must be revised to reflect the long-term restructuring processes that affect and are affected by population redistribution. While most researchers agree that comparability over time is desirable for certain types of longitudinal analysis, classification systems must be periodically updated to reflect changes in a nation's settlement system. As Fuguitt et al. (1988:126) indicated, an obvious disadvantage of the fixed classification system approach "is that strict adherence to the same universe means that the concept of 'metropolitan' necessarily becomes more ambiguous as territorial units change in character (i.e., *become more or less metropolitan*) over the period of study."

Purpose of the study

This paper examines socioeconomic and demographic trends experienced by micropolitan areas and compares these with changes occurring in both metropolitan areas and in territory that is outside of non-core-based statistical areas (non-CBSA). We seek to determine the degree to which micropolitan areas act as an intermediate settlement type that is located between smaller metropolitan cities and non-CBSA counties. This analysis contributes to knowledge of diversity within non-metropolitan America, and demonstrates that the non-metropolitan residual is differentiated in ways that affect opportunities, life chances, and prospects for development.

Some researchers contend that the U.S. is simply one huge "daily urban system," and that non-metropolitan territory retains little or no economic or social autonomy (Berry 1967). However, one's perception of the role and status of non-metropolitan people and places in contemporary American society may depend on how one conceptualizes

and measures what is metropolitan and non-metropolitan (Brown 1979). In particular, the role and status of places that fall into the rapidly expanding intermediate zone between what is clearly metropolitan and clearly non-metropolitan is somewhat ambiguous. The metropolitan–non-metropolitan division needs to be reexamined so that a greater understanding can be gained of the process of metropolitanization, and of the diversity of social and economic roles that continue to be played by people and places that remain beyond the metropolitan periphery (Brown & Cromartie 2003). This paper addresses these issues.

Background

Official metropolitan statistical areas were first created in the U.S. in the 1910 census (U.S. Census Bureau 1913). While the system has been periodically revised since then, one operational principle remained unchanged until 2000. Only metropolitan areas were identified, and non-metropolitan areas were an undifferentiated residual. The problem with this approach is *not* that non-metropolitan is a residual, but rather that such a large and diverse territory is an *undifferentiated* residual (Brown & Cromartie 2003). As early as 1975, the U.S. Department of Agriculture (USDA) disaggregated the non-metropolitan category according to the degree of urbanization because more populous non-metropolitan counties, especially those adjacent to metropolitan areas, were more similar to metropolitan areas than to smaller, more isolated non-metropolitan counties (Hines et al. 1975). While the USDA and several other federal agencies have published a vast amount of analysis demonstrating the significant diversity within non-metropolitan America, the Office of Management and Budget (OMB), the federal government agency responsible for establishing the nation's official statistical geography, had heretofore not adopted this perspective. Accordingly, the 2000 revision of OMB's metropolitan classification standards is particularly significant because in establishing the new core-based statistical system, and delineating *micropolitan areas*, it has officially recognized diversity within the non-metropolitan sector for the first time.

The conceptual and historical bases for studying metropolitanization

Students of urbanization have long recognized the conceptual difference between “urban” and “metropolitan” areas. An urban area refers to a

particular node of population and/or economic activity. While urban areas are often under-bounded and tend to overflow their municipal territory, they are nonetheless relatively discrete places. Metropolitan areas, in contrast, are more extensive geographic entities. The concept of metropolis was not developed by any single scholar or field of scholarship (Duncan et al. 1960). However, Gras' economic history (1922a) is generally considered to be the starting point for contemporary conceptualizations of metropolitan growth, structure and development. Following Gras (1922b), a metropolitan area typically refers to a population center and its immediate hinterland. Contemporary metropolitan areas, however, are likely to be polycentric, e.g., two or more somewhat interrelated central cities interact with an extensive hinterland (Rayer & Brown 2002).

Center and hinterland are bound together through social and economic relationships that are articulated by organizational linkages made possible by transportation and communication technologies. While contemporary center-periphery relationships tend to be mutually interdependent (Savitch et al. 1992; Voith 1992), in the past, centers more clearly dominated their hinterlands (Jacobs 1984; Ledebur & Barnes 1993). In addition to their central roles in local and regional development, metropolitan areas occupy key functional positions in a nation's system of cities, and more generally in global economic, social, and political relationships (Sasson 1994). Tilly (1974) and others have pointed out that global metropolitan dominance is not an entirely new situation in world history. A relatively small number of hegemonic metropolises have exerted control over far flung international economic systems since at least the 16th century (Tilly 1994).

While a few large cities existed in the U.S. prior to the Civil War, and while cities have grown faster than rural areas since 1820, the development of a metropolitanized urban structure only began to emerge in the U.S. around the turn of the 20th century. Schnore (1965:80) has characterized metropolitan development as a "new form of urban growth especially characteristic of 20th century America." He showed that a disproportionate share of U.S. population growth occurred in metropolitan areas (as delineated in 1960) in each decade from 1900 to 1950, and that the metropolitan periphery began to outpace growth in the central core around 1920. Most urban areas were still relatively self-contained at the beginning of the 20th century, and hinterland places located 10–15 miles from the center remained relatively free of the center's domination. However, technological and organizational innovations have facilitated significant peripheral population growth in both

larger and smaller metropolitan areas since the First World War. While the process of metropolitanization involves both the “birth” of new metropolises, and the growth, primarily at the periphery, of existing areas, most metropolitan growth since at least the 1930s has been at the periphery. Schnore (1965), for example, showed that metropolitan rings have grown faster than central cities since the 1920s, and that rural parts of the ring have grown faster than urban parts of the ring since the 1930s. Accordingly, this process of “metropolitan expansion” (Hawley 1971) has absorbed much previously rural territory and population into the metropolitan orbit. What does this process of metropolitan expansion imply about the role and status of non-metropolitan areas in contemporary America?

Revising the metropolitan area statistical system

While “metropolitan districts” were first defined in 1910, the county-based metropolitan area concept that is currently used in the U.S. was first introduced in the 1950 census. The criteria have been revised periodically since then, most generally in the years just preceeding each decennial census. These revisions focused on the rules for inclusion as a central county as well as the criteria for addition at the periphery. A comprehensive summary of these revisions is contained in the Federal Committee on Standard Metropolitan Statistical Areas’ 1981 publication in the *Statistical Reporter*. In this section of the paper we review the main directions of change in metropolitan definitions to provide a basis for considering the importance of the 2000 revision.

Beginning in 1958, OMB undertook periodic reviews and revisions of the metropolitan area standards for the purpose of maintaining their continued usefulness and relevance. The underlying core-periphery concept was never dropped, and few significant changes were made until the 1970s when the need to recognize the increasing variation in urban settlement patterns became clear. Requirements for central cities were loosened in the 1980s so that more central cities were recognized and thus more metropolitan areas were designated. At the same time, metropolitan areas included fewer outlying counties because such counties had to satisfy not only commuting requirements but other criteria meant to reflect “metropolitan character.”

The latest review of metropolitan standards, beginning in 1990 and extending throughout the decade, involved a more fundamental examination of metropolitan concepts than was attempted in previous

reviews. The Metropolitan Concepts and Statistics Project was prompted by widely held concerns that argued for revision. First, many users felt the existing standards were overly complex and burdened with ad hoc criteria. Simplifying the standards would improve the chances that the system and its associated data would be understood and used in appropriate ways. Second, computer-based advances in data collection, storage, and analysis made it feasible to consider a sub-county unit as the basic geographic building block for constructing metropolitan areas as had been done in New England since the system's inception (Morrill et al. 1999). Third, the practice of identifying only metropolitan areas, leaving all territory lying outside to a residual status was no longer deemed satisfactory. Important social and economic differentiation within the non-metropolitan category, the four-fifths of U.S. territory left out of the system, was not taken into account. Early in its deliberations the project's task became one of devising a system that would explicitly define both metropolitan and non-metropolitan areas in a coherent system that would include all of the nation's territory (Dahmann & Fitzsimmons 1995).

Counties were retained as the basic geographic building block of metropolitan areas in the new system because the public is not familiar with sub-county units such as census tracts; because tracts lack reliable economic data; because tracts change more frequently than counties, hence reducing temporal continuity; and most importantly because counties remain the primary unit of local governance except in New England. In contrast, OMB significantly changed other aspects of its metropolitan area classification system in 2000. Most fundamentally, the new standards recognized that both metropolitan and non-metropolitan territory can be integrated with a population center. To this end, a *core-based statistical system* was instituted that established the micropolitan category as a means of distinguishing between non-metropolitan areas that contain a population core, and non-metropolitan areas that do not. Micropolitan areas are built around core settlement clusters of 10,000–49,999 persons, and include both core counties and outlying counties with high commuting to the core.

Analysis

We employ OMB's new metropolitan area criteria to examine the way in which micropolitan areas serve as an intermediate level of urbanization between clearly rural and clearly metropolitan areas. Answering this question helps to determine the extent to which

disaggregating the non-metropolitan residual enhances one's ability to explain recent population distribution trends and the persistence of spatial differences in socioeconomic status. First we will investigate whether micropolitan areas provide a new vantage point for examining the dynamics of migration and population change at the lower end of the urban hierarchy. In particular, we examine whether concentration and deconcentration trends have been experienced differently in micropolitan areas compared with non-core based areas. Similar to Plane and Henrie (2002) we compare migration and population change across the urban hierarchy, but our analysis extends their work by covering four decades in comparison to their analysis of the 1990s. The next part of our analysis focuses on diversity within the non-metropolitan sector itself, and between it and metropolitan areas. In particular, we describe micropolitan area characteristics and compare them with small metropolitan areas and with non-CBSA counties. Once again, the question motivating our analysis is to determine how differentiating micropolitan areas from the remainder of the non-metropolitan category illuminates structural differences that affect life chances of persons who live and work in communities located at different levels of the urban hierarchy.

Population size, land area, and density compared

The average micropolitan county had 50,923 persons in 2000 compared with only 18,521 persons in the average non-CBSA county, and 96,719 persons in small metro counties.¹ The metropolitan category contained 891 of the nation's 3,141 counties, 21% of its land area, and 79% of its population in 2000 (Table 1). The remainder of counties, population and land area is non-metropolitan, but while non-CBSA areas contain the vast majority of non-metropolitan counties and land area, the non-metropolitan population is evenly split between non-CBSA areas and their micropolitan counterparts.² Accordingly, micropolitan population density, while still much lower than in metropolitan areas, far exceeds that of the non-CBSA category.

Micropolitan areas are spread rather evenly across the continental United States (a map of the core based statistical areas classification can be obtained from the authors). While not concentrated in any particular geographic region, distinct groupings are noticeable in the Midwest and Upper Great Lakes states, in both the Northern and Southern Great Plains, and across the mid-South. Many micropolitan areas are adjacent

Table 1. Population, Land Area and Density by CBSA Category, 2000^a

| CBSA category | No. counties | Population | | Land area (square miles) | | Population per sq. mile |
|-------------------------|--------------|------------|---------|--------------------------|---------|-------------------------|
| | | 1,000s | Percent | 1,000s | Percent | |
| U.S. | 3,141 | 281,422 | 100 | 3,536 | 100 | 80 |
| <i>Metropolitan</i> | 891 | 220,792 | 79 | 737 | 21 | 299 |
| Large ^b | 606 | 193,228 | 69 | 488 | 14 | 396 |
| Small ^c | 285 | 27,565 | 10 | 249 | 7 | 111 |
| <i>Non-metropolitan</i> | 2,250 | 60,630 | 21 | 2,799 | 79 | 22 |
| Micropolitan | 582 | 29,637 | 11 | 625 | 18 | 47 |
| Non-CBSA | 1,668 | 30,993 | 11 | 2,174 | 61 | 14 |

^a See OMB (2000) for discussion of procedures used to delineate CBSA county types.

^b More than 250,000 persons.

^c 50,000–250,000 persons.

to large metropolitan areas, such as around Chicago or Dallas-Fort Worth, or fill in the interstitial space between nearby metropolitan regions, such as in North and South Carolina.

Population change along the urban hierarchy, 1960–2000

Only a few researchers have examined how micropolitan areas fit into metropolitan and non-metropolitan population and economic restructuring trends. Vias and Mulligan (2002) show that recent non-metropolitan sectoral transformations are heavily focused on micropolitan areas. They calculate that the number of micropolitan areas dependent on farming or mining dropped from 43 in 1970 to only 10 in 1997, and that 37 areas exhibited diversified economic structure in 1970 versus 91 in 1997. They also point out that micropolitan areas embody a widely shared residential preference for a small-town lifestyle – the ideal compromise between large urban and completely rural settings.

Using the same experimental set of 1990 micropolitan areas, Plane and Henrie (2002) compared migration across the urban hierarchy to determine whether there is a unitary deconcentration process or multiple trends affecting areas of different sizes. Looking at changes in migration flows between 1995–1996 and 1999–2000, they found that

most changes occur at lower levels of the hierarchy and with much regional variation. Patterns across the urban hierarchy are complicated by the fact that, regardless of urban size, spatial deconcentration to the urban fringe continues to be a dominant demographic trend.

Here we adopt Plane and Henrie's (2002) 7-level classification system to make a similar comparison of population change across the urban hierarchy. However, we use a longer time frame, 1960–2000, in order to see how micropolitan areas fit into the contrasting patterns of growth between metropolitan and non-metropolitan areas during these four decades. This scheme divides non-metropolitan counties into non-CBSA and micropolitan components, and metropolitan areas into five size categories ranging from below 250,000 to above 2.5 million. The data in Table 2 show that the first five classes were roughly equal in population size in 1990, but were much smaller than the largest two categories. Moreover, the 495 micropolitan areas had only one-third of the population found in the 13 largest metropolitan areas.

During the period 1960–2000, migration patterns between metropolitan and non-metropolitan areas (as defined in 1990) underwent at least three unanticipated shifts in direction. Johnson and Fuguitt (2000) label these periods from the non-metropolitan perspective as the “turnaround” of the 1970s, the “turnaround reversal” of the 1980s, and the “rebound” of the 1990s. Figure 1 shows just how much metropolitan and non-metropolitan areas, taken as a whole, followed different population growth patterns over the past four decades. While metropolitan areas

Table 2. Classification of the Urban Hierarchy, 1990

| Classification | Population, 1990 | Number of CBSAs | Number of counties |
|----------------------------|---------------------|--------------------|-----------------------|
| <i>Non-metropolitan</i> | | | |
| Non-CBSA | 26,121,008 | n/a | 1,650 |
| Micropolitan | 26,621,269 | 495 | 574 |
| <i>Metropolitan</i> | | | |
| A: Less than 250,000 | 26,274,272 | 177 | 279 |
| AA: 250,000–499,999 | 26,382,496 | 76 | 176 |
| AAA: 500,000–999,999 | 28,611,423 | 40 | 135 |
| Major: 1,000,000–2,499,999 | 41,964,789 | 26 | 145 |
| Mega: 2,500,000 or more | 72,734,606 | 13 | 133 |

Note: Classification scheme adopted from Plane and Henrie (2002).

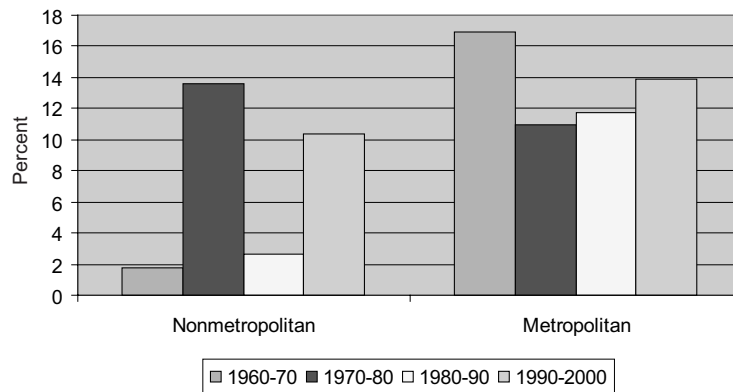


Figure 1. Non-metropolitan and metropolitan population growth, 1960–2000.

exceeded 11% growth in each of these four decades, non-metropolitan areas fluctuated from a low of 2% in the 1960s to almost 14% during the 1970s.

Johnson and Fuguitt’s findings and those of other rural demographers clearly show much differentiation in this overall pattern by socioeconomic characteristics, such as age, and type of area. Here we ask two similar questions about differentiation along the urban hierarchy:

As we move up the urban hierarchy, where do “non-metropolitan” patterns end and “metropolitan” patterns begin?

Do micropolitan areas provide a measure of stability to non-metropolitan “turnaround-reversal-rebound” patterns?

We examine these questions with regard to both absolute levels of population change and change in population growth rates.

Figure 2 compares the absolute level of population change among the 7-level urban hierarchy between 1960 through 2000. The 13 metro areas in the “mega” category added more people than any other category in every decade but the 1970s, when it added fewer than any category, including non-CBSA areas. Every decade except the 1970s shows a clear positive correlation between population size and population growth. In fact, even though non-metropolitan areas experienced a rebound during the 1990s, this decade does not show the same temporary demographic decline of large urban agglomerations as was seen in the 1970s.

The familiar turnaround-reversal-rebound pattern extends beyond the non-metropolitan category boundary. In terms of absolute population growth, the dividing line seems to be between metropolitan categories AA and AAA, cities with populations below and above 500,000.

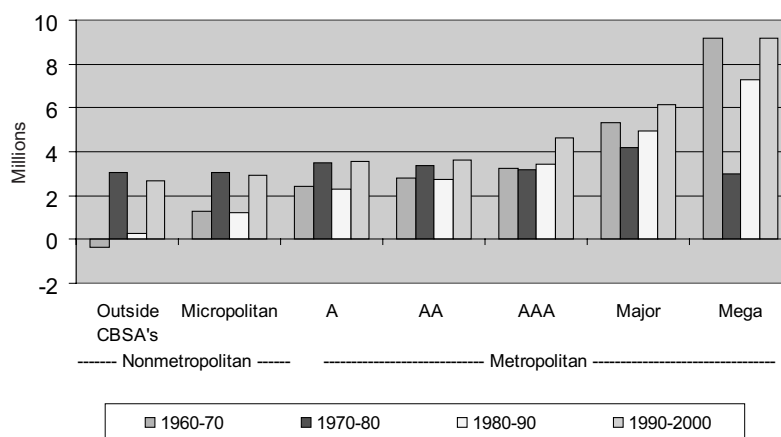


Figure 2. Population change by CBSA category, 1960–2000. Note: See Table 2 for a description of the urban classification used here.

The pattern weakens considerably as one moves up the urban hierarchy, with the greatest decade-to-decade fluctuation experienced by non-CBSA areas. Micropolitan areas also experienced marked demographic shifts during these four decades, but not nearly as extreme as those experienced by non-CBSA counties.

The data in Figure 3 show that most of the same patterns hold for population growth rates, except that the demographic advantage shifts along the hierarchy from one decade to the next. The turnaround in non-metropolitan advantage during the 1970s occurred strictly because of the poor performance of the two largest metropolitan categories. Metropolitan categories A through AAA grew at faster rates than either non-CBSA or micropolitan areas throughout this period. The rebound of the 1990s was not strong enough to pull either of the non-metropolitan categories up to the growth rate of any of the metropolitan levels. In fact, the rebound took place across the entire urban hierarchy, though for different reasons. In non-metropolitan areas, and possibly in smaller metropolitan areas as well, it was due to shifts in domestic migration down the urban hierarchy, whereas increased immigration was the principal contributor to population growth in larger metropolitan areas.

Comparing micropolitan and non-CBSA counties over these four decades shows that they experienced similar rates of change when non-metropolitan areas as an overall category were growing relatively rapidly compared with metropolitan areas (e.g., in the 70s and 90s), but that non-CBSA areas had dramatically lower rates of population change in decades when the non-metropolitan sector as a whole was

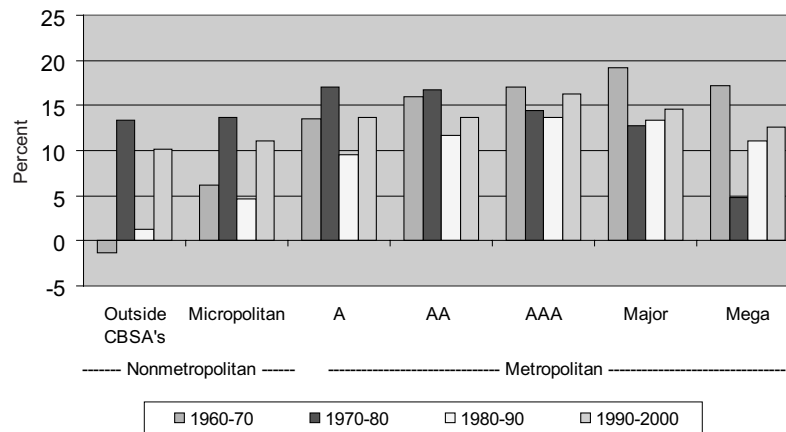


Figure 3. Population change rates by CBSA category, 1960–2000. Note: See Table 2 for a description of the urban classification used here.

doing relatively poorly (e.g., in the 60s and 80s). Some of the difference in population growth rates between the two types of non-metropolitan counties can be attributed to smaller population bases in non-CBSA counties, which allows for more extreme swings. But we believe the findings indicate that lack of an urban core and low overall population density place these counties at a disadvantage in efforts to expand and diversify their economic bases, and thus attract and/or retain migrants during times of rural retrenchment.

These findings indicate that the non-metropolitan turnaround-reversal-rebound pattern appears to reach beyond micropolitan areas into lowest levels of metropolitan hierarchy. As an intermediate category, micropolitan areas do provide some measure of stability to non-metropolitan migration and population change rates during periods of higher out-migration; non-CBSA areas were disproportionately responsible for periods of non-metropolitan population stagnation in the 1960s and 1980s, but shared almost equally in attracting migrants during the 1970s and 1990s. This analysis demonstrates the importance of distinguishing among counties along the urban hierarchy, not just in the non-metropolitan sector, but throughout the entire urban spectrum.

Micropolitan areas in comparative perspective

Who lives in micropolitan America; how do they make their living; and how does this compare with their counterparts in more and less highly

urbanized areas? Simply because a particular category of counties is larger and denser than its counterparts doesn't necessarily indicate that different kinds of people live in such places. However, previous research indicates that this tends to be the case. Enduring, albeit diminishing, differences in socioeconomic characteristics have been shown to characterize places located at differing levels of the urban hierarchy (Fuguitt et al. 1989). The data in Table 3 compare social and economic characteristics of persons living in various types of metropolitan and non-metropolitan counties. Each panel of this table shows regular patterns of decline in socioeconomic status as one moves from the

Table 3. Socioeconomic characteristics by county type, 2000

| Characteristic | Metropolitan | | | Non-metropolitan | | |
|--|--------------|--------------------|--------------------|------------------|-------|----------|
| | Total | Large ^a | Small ^b | Total | Micro | Non-CBSA |
| Educational attainment | | | | | | |
| Percent less than high school | 18 | 18 | 18 | 24 | 22 | 25 |
| Percent high school | 27 | 26 | 31 | 35 | 34 | 36 |
| Percent college | 55 | 56 | 51 | 41 | 44 | 39 |
| Industry of employment (selected) | | | | | | |
| Percent farm | 1 | 1 | 2 | 6 | 4 | 9 |
| Percent manufacturing | 11 | 11 | 15 | 15 | 16 | 15 |
| Percent retail | 16 | 16 | 18 | 17 | 18 | 16 |
| Percent services | 33 | 34 | 29 | 24 | 25 | 23 |
| Occupation of employment (selected) | | | | | | |
| Percent manager, professional | 35 | 36 | 31 | 27 | 28 | 26 |
| Percent technical, sales, administration | 27 | 28 | 26 | 24 | 24 | 23 |
| Percent labor ^c | 9 | 9 | 10 | 12 | 11 | 12 |
| Earnings per nonfarm job | | | | | | |
| All jobs (\$000) | 37 | 38 | 29 | 25 | 27 | 24 |
| Manufacturing (\$000) | 51 | 53 | 41 | 34 | 37 | 32 |
| Retail (\$000) | 20 | 20 | 16 | 15 | 16 | 15 |
| Services (\$000) | 33 | 34 | 25 | 20 | 22 | 19 |

^a More than 250,000 persons.

^b 50,000–250,000 persons.

^c Skilled and unskilled.

largest metropolitan areas to non-CBSA counties. For example, 55% of all metropolitan persons attended college compared with 41% of non-metropolitan residents. Within the non-metropolitan sector, the data show that micropolitan residents have completed more education than their non-CBSA counterparts (44% versus 39% have attended college, respectively).

These data also show that metropolitan workers are more likely to occupy jobs in service industries while non-metropolitan workers depend more on jobs in farming and manufacturing. Within the non-metropolitan category, moreover, dependence on farming is over twice as high in non-CBSA counties compared with micropolitan areas, and modest, but consistently smaller, percentages of non-CBSA employees work in manufacturing, retail, and service jobs. Hence, while economic restructuring has occurred throughout the nation's settlement structure, the transformation is less complete in non-CBSA areas, where dependence on traditional industries remains relatively high.

The data in Table 3 also show that the returns to labor diminish as one moves from the largest metropolitan to the smallest metropolitan category, and that earnings are lower in non-CBSA areas than in micropolitan counties regardless of industry. Service and manufacturing workers, for example, earn 15% less than their counterparts in micropolitan counties. Part of this wage gap appears to be associated with a slightly lower-status occupational composition within non-CBSA county industries, while part is undoubtedly due to lower wages within each occupation/industry category in non-CBSA versus micropolitan areas.

Presence of "metropolitan functions"

Another way to investigate whether micropolitan areas are more "metropolitan" than non-CBSA counties is to examine the presence of various services and facilities typically associated with metropolitan status (Beale 1984). We conducted a mail survey of the chief administrative officers of county governments in a 10% random sample of non-CBSA counties, and in 20% of the central counties of micropolitan and small metropolitan areas (with populations of 250,000 or less). (A map of counties included in the survey is available from the authors.) Almost three-quarters of all sample counties replied, and the response rate was essentially equal across the three samples (73, 74 and 77% respectively).

The survey data in Table 4 reveal that central counties of small metropolitan areas are clearly differentiated from both of the non-metropolitan categories. All 12 metropolitan functions are most prevalent in small metropolitan counties, and least present in non-CBSA areas. Micropolitan areas are intermediate between small metropolitan and non-CBSA areas, but their service complements are more similar to small metropolitan than to non-CBSA areas. Scheduled air service, for example, is present in about half of small metropolitan areas, in about one-quarter of micropolitan areas, but in only 7% of non-CBSA counties. Three-quarters of small metropolitan areas have a museum that focuses beyond the locality compared with about one-half of micropolitan areas, and a quarter of non-CBSA counties. Commercial television with local news and broadcasting is present in three-quarters of small metropolitan areas, in 37% of micropolitan areas and in 11% of the nation's most rural counties.

Table 4. Presence of "urban" services and facilities by county type, 2000

| Service or facility | Percent provided in county | | |
|--|---------------------------------|--------------|----------|
| | Small metropolitan ^a | Micropolitan | Non-CBSA |
| Scheduled passenger air service | 52 | 23 | 7 |
| Scheduled inter county bus service | 97 | 69 | 38 |
| Local bus service | 97 | 59 | 30 |
| Museum ^b | 73 | 52 | 25 |
| Daily newspaper | 97 | 88 | 22 |
| National or regional hotel franchise | 100 | 94 | 41 |
| Four year college | 81 | 40 | 10 |
| Library with multiple branches | 78 | 57 | 34 |
| Commercial television station ^c | 73 | 37 | 11 |
| General hospital ^d | 100 | 100 | 72 |
| <i>N</i> | 33 | 92 | 129 |

^a 50,000–250,000 persons.

^b Art, science or natural history with focus beyond local county.

^c With local news and advertising.

^d With at least two of four of the following services: emergency room, physical therapy, cardiac care or MRI.

Table 5. Population size of surveyed micropolitan and non-CBSA counties by number of urban functions, 2000

| CBSA category and number of functions | No. counties | Population | |
|---|--------------|-----------------|----------------------|
| | | Total 1,000s | Per county 1,000s |
| Micropolitan | 84 | 4,514 | 54 |
| 0–5 | 31 | 1,390 | 45 |
| 6+ | 53 | 3,123 | 59 |
| Non-CBSA | 120 | 1,790 | 15 |
| 0–5 | 105 | 1,310 | 12 |
| 6+ | 15 | 481 | 32 |

The greater presence of metropolitan functions in micropolitan versus non-CBSA counties is at least partly associated with differences in population size (Table 5). The association between population size and number of urban functions seems particularly strong in the non-CBSA category where counties with six or more functions are three times larger than counties with five or fewer functions. Micropolitan counties with six or more functions are also larger than their counterparts with five or fewer functions, but the difference is not as great as in the non-CBSA comparison. We also did this with a cut point of 4 or more functions and the results were similar.

Conclusions

This paper has examined the most recent revision of the U.S. government's classification system of metropolitan and non-metropolitan areas. The new core-based system delineates micropolitan areas, thereby responding to previous criticisms that non-metropolitan America should not be treated as an undifferentiated residual (Brown & Cromartie 2003). Our point of departure then, was to examine how effectively the micropolitan concept differentiates the social and economic reality of places in the rapidly expanding intermediate zone between what is clearly metropolitan and what is clearly non-metropolitan. We conducted this research to gain insights into how the new classification system assists in understanding the dynamics of urbanization at the lower range of the urban hierarchy.

Our analysis demonstrates that micropolitan areas are an intermediate stage of urban development between larger, more extended metropolitan systems, and smaller more localized rural places. For example, we showed that while micropolitan areas have relatively extensive representations of metropolitan functions, their service complements are less complete than what is characteristic of even the smallest category of metropolitan areas. Moreover, we showed that while industrial restructuring has diffused throughout the urban hierarchy, the transformation from production to services is far less complete in non-CBSA counties than in more highly urbanized micropolitan areas.

We also showed that inter-category variability in non-metropolitan growth rates was minimal during decades when the non-metropolitan sector as a whole was performing relatively well, but that decline and stagnation in smaller, less urbanized non-CBSA areas has an important negative impact on non-metropolitan growth rates during periods when the entire category is doing poorly. Accordingly, studies of non-metropolitan population growth and migration should focus on the wide swings experienced by non-CBSA areas. Decade-to-decade swings in micropolitan areas, while still marked, were not nearly as dramatic as those experienced by smaller more isolated places with more production-dependent economies.

We conducted a survey of chief administrative officers in small metropolitan, micropolitan and non-CBSA counties to examine variability in the presence and absence of metropolitan functions at the lower range of the urban hierarchy. These data show that the presence of scheduled air and bus service, museums and other cultural and educational facilities, and daily newspapers and television stations varies greatly among non-metropolitan counties. Micropolitan counties have a greater representation of these functions than non-CBSA areas, but there is diversity within both of these county types as well. Some of this variability is associated with differences in population size. While our analysis has shown that these urban functions are differentially available in non-metropolitan America, future multivariate research is needed to disentangle the reasons why service availability varies across non-metropolitan counties.

The U.S. government's new core-based statistical areas system officially recognizes diversity within the non-metropolitan residual, and sheds light on how this diversity affects demographic and socioeconomic development in the rapidly changing intermediate areas between metropolitan and non-metropolitan America. As information about micropolitan areas makes its way into government data and

publications alongside that about metropolitan areas, micropolitan areas will draw increased attention from policy makers and the social science research community. Accordingly, we see the new core-based classification system as a step in the right direction that will enhance our understanding of urbanization and spatial development in America during the 21st century.

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Notes

1. Core-based statistical areas based on the 2000 census were not available at the time of our survey and analysis, so it was necessary to use a version developed by applying the already published criteria (U.S. Office of Management and Budget 2000) to 1990 data. The official version of metropolitan and micropolitan areas – based on the 2000 census and released in June 2003 – includes a much higher number of micropolitan areas, in part because of urban growth in the 1990s, but mostly because the new micropolitan areas are based on urban clusters and not places (U.S. Office of Management and Budget 2003).
2. In the official CBSA system, based on the 2000 census, the majority of non-metropolitan counties are still non-CBSA, but the population is more concentrated in micropolitan areas (Cromartie 2003).

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